



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,784	09/19/2003	Thomas H. Chuang	STL11057	6734

7590 10/17/2005
Fellers, Snider, Blankenship,
Bailey & Tippens, P.C.
Bank One Tower
100 North Broadway, Suite 1700
Oklahoma City, OK 73102-8820

EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,784

Applicant(s)

CHUANG, THOMAS H.

Examiner

Tung S. Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 7 is/are allowed.
- 6) ☒ Claim(s) 21-23,25 and 29 is/are rejected.
- 7) ☒ Claim(s) 24,26-28 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Amendment on specification

1. The specification amendment filed on 09/22/2005 is accepted by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 21, 22, 23, 25 and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by Koh (U.S. Patent Application Publication 2003/0173838).

Regarding claim 21:

Koh discloses a devices comprising: a first transducer which produces an analog signal in response to mechanical vibration of said transducer induced by a member rotated at an instantaneous speed less than an operational speed of said member (page 1, section 0014-0015, fig. 1, unit 105), an analog-to-digital data acquisition member which samples the analog signal to produce digital signal therefrom (fig. 1, unit 111); a second transducer which detects said instantaneous speed of the rotating member (fig. 1, unit 102); and a processor which processes the digital signal in relation to a frequency associated with said instantaneous speed (fig. 1, unit 130, page 1-2, section 0008-0014).

Regarding claim 22, Koh further discloses the second transducer comprises an optic sensor responsive to a target feature of the rotating member (fig. 1, unit 102), and wherein the optic sensor is adapted to trigger the data acquisition member to begin sampling when the rotating member is rotating (page 1, section 0014-0015); Regarding claim 23, Koh further discloses magnitude of the digital signal at frequency associated with the instantaneous speed is greater than the preselected threshold (fig. 2, unit 203); Regarding claim 25, Koh further discloses the first transducer produces a first analogy signal along a first plane (fig. 1, unit 103) wherein the device further comprises a third transducer that produces a second analog signal along (fig. 1, unit 104), a second plane, and wherein the analog-to-digital acquisition device samples the first and second analog signals (fig. 1, unit 111); Regarding claim 29, Koh further discloses the rotating member is a data storage surface for a data storage device having an associated data transducer to transducer stored data surface wherein the instantaneous speed is a speed below which data can successfully transducer stored data (page 1, section 0006-0007).

Allowable Subject Matter

3. Claims 1-5 and 7 are allow. Claims 24, 26 27, 28 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

Art Unit: 2863

The following is an examiner's statement of reasons for allowance: prior art fail to teach:

Regarding claim 1:

The primary reason for the allowance of claim 1 is the inclusion of the device for measuring an article having rotating member including the magnitude and phase of the frequency domain digital signal associated with the rotating member. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 2-5 and 7 are allowed due to their dependency on claim 1.

Regarding claim 24, the first transducer characterized as a piezoelectric element coupled to rotating member; Regarding claim 26, the first and third transducer are positioned orthogonally; Regarding claim 27, the magnitude and phase of the frequency domain digital signal a frequency associated with the speed;

Regarding claim 30, the rotating member comprises a magnetic storage disc.

Claim 28 are objected due to their dependency on claim 27.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments filed 09/22/2005 have been fully considered but they are not persuasive.

A. Applicant argues that the prior art does not show the 'induced by a member rotating an instantaneous speed less than an operational speed of member' in claim 21. Koh discloses 'induced by a member rotating an instantaneous speed less than an operational speed of member' in page 1, section 0014-0015, here Koh discloses using multi instantaneous speed rotation of the disc to obtain peak to peak of the drive, since the drive is capable of multi instantaneous speed, therefore is obvious to construct this for ordinary skill in the art at the time of the invention was made as 'induced by a member rotating an instantaneous speed less than an operational speed of member'.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL


MICHAEL NGHIEM
PRIMARY EXAMINER